REMARKS

This Response is filed in response to a Office Acton dated January 16, 2009.

Upon entry of this response, claims 12-24 will be pending in the Application, claims 12, 13, 15-18 and 20-24 have been amended. No new matter has been added by the amendments, as support for the amendments is found in the disclosure as originally filed.

In the outstanding Office Action, the Examiner rejected claims 12-24 under 35 U.S.C. 112, first paragraph; rejected claims 12-24 under 35 U.S.C. 112, second paragraph; rejected claims 12-24 under 35 U.S.C. 103 as obvious over Steibel et al. 6,280,550, hereinafter referred to as "Steibel et al.", in view of JP-6-137103, hereinafter referred to as "JP '103", and Baldwin et al. 5,279, 892, hereinafter referred to as "Baldwin and Steibel et al. 6,258,737, hereinafter referred to as "Steibel et al. '737"; and rejected claims 17 and 18 under 35 U.S.C. 103 as obvious over Steibel et al. in view of JP-6-137103 and Baldwin et al. 5,279, 892.

Response to Argument

Applicant thanks the Examiner for the telephone Interview on April 16, 2009, at which time Applicant discussed the believed distinguishing characteristics of Applicant's invention, including the solid inserts, over the prior art. Applicant also discussed a proposal to include amending the claims from "homogeneously solid" to –solid-- structure of the core insert section to better distinguish over the hollow core inserts of Steibel et al.

Rejections under 35 U.S.C 112, first paragraph

The Examiner rejected claims 12-24 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner found that the disclosure as originally filed did not support the terms "homogeneously" or "solid".

Applicant has amended the claims to delete the term "homogeneously". Applicant maintains that the term "solid" is supported by the disclosure as originally filed. In particular, Applicant's core insert sections use a "high compressive strength material" (paragraph [0012]), and are at least partially located in the dovetail section where they may experience "very high shear stresses" (paragraph [0008]). In addition, Figs. 4 and 5 are

cross-sectional views of the dovetail of the present invention (paragraphs [0025], [0026], [0034]). The disclosure, taken as a whole, clearly supports finding the inserts are solid bodies, in contrast to the inserts of Steibel et al., where the inserts are described and shown as having cooling channels.

Rejections under 35 U.S.C 103

A. Steibel et al. in view of JP '103 and Baldwin and Steibel et al. '737

The Examiner has rejected claims 12-24 under 35 U.S.C. 103(a) as obvious over Steibel et al. in view of JP '103 and Baldwin and Steibel et al. '737.

Specifically, the Examiner stated:

> Regarding claims 12-20, Steibel et al. 6,280,550 discloses a method of making a composite turbine blade comprising: providing first reinforcement comprising an insert preform of silicon carbide fabric rigidized by deposited silicon carbide (silicon carbide-silicon carbide composite preform having porosity); optionally depositing matrix material to fill only a portion of the porosity of the insert preform (silicon-silicon carbide composite preform having some porosity); providing second reinforcement comprising silicon carbide fabric plies (outer shell preform); applying the silicon carbide fabric plies to contact the insert preform and define the surface shape of the blade; and depositing matrix material into the porosity of the first and second reinforcement, the depositing also providing bonding between the first and second reinforcements. Matrix material may be deposited by melt infiltration of silicon so that the matrix is silicon carbide or mixture of silicon and silicon carbide. As shown in Figure 7, the insert is provided in the dovetail section of the blade (col. 2-7). Steibel et al. do not specifically disclose providing the second reinforcement as plies of silicon carbide prepreg cloth or disclose providing the composite turbine blade with a dovetail section by inserting an insert preform in the dovetail section. The ambiguous term "homogeneously" solid is taken to the satisfied by the fact that the walls of the core are solid. Note that Steibel also acknowledges that both entirely solid and hollow articles may be produced (column 2).

JP 6-137103 teaches that a fiber reinforced composite turbine blade, such as of fiber strengthening ceramic (ceramic matrix composite), is made with a dovetail section using reinforcing fiber which extended from the dovetail section to the blade part (Abstract and computer translation).

Baldwin teaches that in making composite airfoils (fan blades), inserts or "preforms" are provided in both the blade part to form the core of the blade and in the root part (dovetail) of the blade. The preform inserts are made to be of the same composite material as the composite material layered over the inserts to form the composite blade. Using insert enhances producibility and eliminates the hundreds of prepreg layers, especially in the thick root sections (col. 2, lines 13-57, col. 4, lines 44-46).

Steibel et al. '737 teaches that in making a silicon carbide composite by melt infiltration with silicon, the silicon carbide fiber fabric is impregnated with high char yield slurry to form a prepreg before melt infiltration. The use of a high char yielding resin improves increases bum- out strength, produces a hard, tough preform and provides integrity to the preform structure during silicon melt infiltration. Steibel et al. further teach that before melt infiltration, the impregnated fabric (prepregged cloth) is either subjected to compression molding, bladder molding or autoclaving to form a preform for melt infiltration. Steibel et al. also teach that carbon of micrometer particle size provided in silicon carbide preforms to give different composite properties of structure (col. 5, line 50 - col. 6, line 11, col. 6, line 64 - col. 7, line 12).

It would have been obvious to one of ordinary skill in the art to have modified the method of Steibel et al. for making a composite turbine blade by making the turbine blade with a dovetail section, as taught by JP ' 103 as provided as part of a turbine blade and also made during the fabrication of a fiber reinforced composite blade. Providing the fabric plies (outer shell section preform) to extend from the blade part to a dovetail section to form both the blade and dovetail section of a turbine blade in one step of matrix deposition would have been obvious to one of ordinary skill in the art, as

JP ' 103 teaches that the reinforcing fiber for a turbine blade extends from the blade to the dovetail section.

Providing an insert preform not only in the blade section but also in the dovetail section would have been obvious to one of ordinary skill in the art, as Baldwin teaches that a composite fan blade having a root part (dovetail) is provided with insert (insert preform) not only in the blade part but also in the dovetail part in order to enhance producibility and reduce the number of prepreg layers, especially in the thick dovetail section. Providing an insert (insert preform) in the dovetail section as silicon carbide fabric rigidized by deposited silicon carbide (silicon carbide- silicon carbide composite preform having porosity), or silicon-silicon carbide composite preform having some porosity, would have been obvious to one of ordinary skill in the art to provide an insert preform in the dovetail section similar to that provided in the blade section to allow for deposition of matrix by silicon melt infiltration and bonding between the preform and the fabric plies, as disclosed by Steibel et al. It would have been obvious to one of ordinary skill in the art that, in making a silicon carbide-silicon carbide composite turbine blade using insert preforms in both the blade part and dovetail part, to provide the insert preforms as similar in composition to each other and to the fabric plies which are to contact the insert preforms, as Baldwin et al. teach that the insert in the blade part and dovetail part are similar in composition and to that of the prepreg layers (plies) to enhance producibility and to reduce the number of prepreg layers required, especially in the thick dovetail part of the blade. The use of the same type of insert preform in the dovetail section as used in the blade section would have been obvious to one of ordinary skill in the art, as clearly suggested by Baldwin, to make a composite blade.

It would have been obvious to one of ordinary skill in the art to have further modified the method of Steibel et al. for making a composite turbine blade by providing the second reinforcement as impregnated with high char yielding slurry (prepregged or

a preform) before contacting the insert preform, as taught by Steibel et al. '737, as impregnated in silicon carbon fiber fabric before silicon melt infiltration to increase burn-out strength, produce a hard, tough preform and provide integrity during silicon melt infiltration.

Autoclaving the assembly of second reinforcement prepreg and insert preform before silicon melt infiltration, as claimed in Claim 12, would have been obvious to one of ordinary skill in the art, as taught by Steibel et al. '737, to aid in forming the prepreg into preform shape before melt infiltration. It would have been obvious to have autoclaved to help shape the prepregged plies into the surface shape of the blade.

Providing the silicon-silicon carbide insert preform with carbon microspheres, as claimed in Claims 14 and 19, would have been obvious to one of ordinary skill in the art, as taught by Steibel et al. '737, as added to silicon carbide preforms to give different composite properties of structure. The use of carbon microspheres in either of the insert preform or second reinforcement preform would have been obvious to one ordinary skill in the art depending on desired composites properties of the insert or the surface of the composite turbine blade.

Regarding claims 20 and 21, Steibel 6,280,550 discloses the insert being prepared and rigidized prior to the application of the second layer (figure 1; columns 3 and 4). This prior preparation is taken to be a pre-fabrication. In addition the examiner notes that even if such a teachings was not explicitly stated it would have been obvious nonetheless absent a showing of unexpected results because essentially the same end product would have been produced. Note that the courts have held that selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results (*In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)) and have further upheld that the disparity between simultaneous and sequential steps is likewise an obvious matter absent a showing of unexpected results (New Wrinkle v. Marzall 93 USPQ 92, New Wrinkle v. Watson 96 USPQ 436)).

> Regarding claims 23 and 24, Steibel 6,280,550 discloses the thickness of the product is defined by strength considerations and that such thickness is allocated between the two layers (i.e. insert and overlay) (column 6). Cleary it is expected that increase in the thickness of one of the rigidized layer results an increased strength of said layer. Steibel discloses that <u>typically about half</u> of the total number of plies is in each of the layers. Steibel therefore typically utilizes about similar strengths for the insert and outer shell. The examiner notes that by use of the term typically and about Steibel is recognizing that variations both occur and can be used as viable options so therefore a slightly stiffer insert (based upon a slight increase in ply thickness) is not out of the scope of Steibel's disclosure. Steibel recognizes that a variation such as one with a stiffer insert would be viable and accomplished via utilizing of a larger number of plies used in the insert compared to the overlay. Also note in this case Steibel recognizes that ply thickness is a result effective variable affecting the strength of the layers and it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch,* 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The courts held that the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges (i.e. varying the relationship from near 50/50 and in either direction therefrom) is the optimum combination of percentages (*Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382).

Applicants respectfully traverse the rejection of claims 12-20 under 35 U.S.C. §103(a).

The following principles of law apply to all section 103 rejections:

(a) [a] patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of [title 35], if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The inquiry into whether the subject matter of a patent application is obvious under section 103 begins with the factual inquiries outlined in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 148 (1966). The steps for considering these factual inquiries are:

the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966). The *Graham* factors were affirmed by the U.S. Supreme Court's decision in *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In *KSR*, the Court continued by indicating that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* (cited by MPEP § 2141). In *KSR*, the Court reaffirmed, at least in part, three cases applying this rule: *United States v. Adams*, 383 U.S. 39 (1966) (rendering as obvious the mere substitution of one element), *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S 57 (1969) (rendering as obvious claims with two pre-existing elements combined wherein the combined elements did no more than they would have in separate, sequential operation), and *Sakraida v. AG Pro, Inc.*, 425 U.S. 273 (1976) (rendering as obvious claims that simply arranged old elements wherein each element performed the same function as had been previously performed). Summarizing the above authority, the Court (and the MPEP) reiterated that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR* at 1741 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Steibel et al., as understood, is directed to a method of forming a composite article, such as a turbine vane, formed by preparing a porous first-region piece and then applying at least one second-region layer. Steibel et al. discloses wherein the first-region piece is rigidized prior to applying the at least one second-region layer. Steibel et al. further discloses at Figure 5 and supporting discussion wherein said process is used to form a turbine vane. The porous first-region is exemplified by insert 80 in Figs. 7 and 8, and referred to by the Examiner in the rejection.

Independent claim 12, as amended, recites:

"providing a solid core insert section having a preselected geometry, the core insert section comprising a material selected from the group consisting of silicon carbide-silicon carbide composite preform having at least some porosity, silicon-silicon carbide composite, silicon-silicon carbide composite preform having at least some porosity, and a monolithic ceramic;" and

"assembling the solid core insert section and the outer shell section into a turbine blade form, the turbine blade form comprising a dovetail section and an airfoil section, wherein the solid core insert section is positioned in the dovetail section of the turbine blade form;"

and independent claim 17, as amended, recites:

"providing a solid core insert section having a preselected geometry, the core insert section comprising a material selected from the group consisting of a silicon carbide-silicon carbide composite preform having at least some porosity, a silicon-silicon carbide composite, the silicon-silicon carbide composite preform having at least some porosity, and a monolithic ceramic;" and

"assembling the solid core insert section and the outer shell preform into a turbine blade form, the turbine blade form comprising a dovetail section and an airfoil section, wherein the solid core insert section is positioned in the dovetail section of the turbine blade form;"

Steibel et al. discloses insert 80 in Figs. 7 and 8 that includes a channel 66b for cooling. Clearly, the insert of Steibel et al. is not solid, but is hollow, to provide cooling. Such an insert could not perform it's intended function and be solid.

Furthermore, Steibel et al. does not disclose positioning a core insert into the dovetail section and further processing by silicon melt infiltration process to bond the insert to the outer prepregs. Figure 7 of Steibel et al. provides no disclosure as to a dovetail section and is only concerned with the airfoil section of a turbine blade. Furthermore, this defect is not cured by the secondary references to JP '103 or Baldwin et al. as further discussed above in Section A.

The inserts of Steibel et al. <u>are used in forming a vane portion of a turbine component</u>, and more particularly, are taught to form component parts wherein the preforms are used in areas of hollow passageways or cooling channels. Additionally, the Applicant finds that the entire disclosure of Steibel et al. is directed to the vane section of the turbine blade and is completely silent as to the dovetail section of the blade. As discussed in

Applicant's Specification at [0027], "The turbine blade 20 is mounted to a turbine disk (not shown) by a dovetail 24 that extends downwardly from the airfoil 22 and engages a slot of similar geometry of the turbine disk. Applicant similarly stated at [0040] that "The turbine blade 20 is mounted to a turbine disk (not shown) by a dovetail 24 that extends downwardly from and engages a slot on the turbine disk where it is secured in position." Steibel et al. '550 makes no reference to a dovetail section.

Thus, the teaching of Steibel et al. does not teach or suggest the insert material and formation in the dovetail section by the claimed manufacturing limitations. Furthermore, one of ordinary skill in the art, aware of the differences in desired characteristics between the vane or airfoil portion of the turbine blade and the dovetail portion of the turbine blade, and the differences in the operating conditions to which these different parts of the components would be exposed, would not find obvious the interchangeability of components, including inserts, and the ability to perform silicon melt infiltration into the dovetail to form a bond between the insert and the outer shell preform. In addition, the preforms of Steibel et al. are hollow to provide cooling channels to the blade portion. It would not be obvious, nor would motivation be provided, to provide hollow performs as taught by Steibel et al., which are used to provide cooling to the blade portion of the turbine blade into a dovetail section.

These deficiencies of Steibel et al. are not be cured by the secondary references. At best, JP '103 teaches that the reinforcing fibers of the turbine vane extend into the dovetail section. This fails to cure Steibel et al.'s deficiencies by failing to provide a teaching that the preforms would be positioned within these extended reinforcing fibers in the dovetail region.

Furthermore, Baldwin's teaching as to inserts being known in the dovetail section of a cloth/resin blade, fails to cure the deficiencies of Steibel et al. The inserts of the prior art do not possess the claimed limitations to composition or method of bonding within the dovetail, nor bring to the primary reference motivation to alter the primary reference as recited in the pending independent claims as amended.

Baldwin cannot cure the deficiencies of Steibel et al. since Baldwin is non-analogous art. For Baldwin et al. to cure the deficiencies of Steibel et al., Baldwin must be properly combinable with Steibel et al.

Baldwin is directed to a cloth/resin composite blade. The composite blade may include an insert formed of the same or similar material as the composite blade. Baldwin discloses a cloth/resin insert in the dovetail bonded overlaid prepregs by resin bonding. Baldwin is thus directed to a method of manufacturing a composite resin/cloth blade

including curing to bond the cloth/resin insert to the outer cloth/resin plies, as compared to Steibel which is directed to bonding a ceramic prepreg insert by a silicon melt infiltration process to bond the insert to the outer prepreg layers to form a ceramic blade. One of ordinary skill in the art would not combine Baldwin with Steibel et al. to bond the insert in the dovetail of Steibel et al. by melt infiltration. Such a combination would be clearly hindsight and lacks motivation.

The Examiner argues that Baldwin is only being used to teach that inserts can be provided to the dovetail section, by stating

> "Baldwin teaches that in making composite airfoils (fan blades), inserts or "preforms" are provided in both the blade part to form the core of the blade and in the root part (dovetail) of the blade. The inserts are made to be of the same composite material as the composite material layered over the inserts to form the composite blade. Using inserts enhance probability and eliminated hundreds of prepreg layers, especially in the thick root sections (col. 2, lines 13-57, col. 4, lines 44-46)."

However, one of ordinary skill would not suspect or believe that a resin/cloth process teaching would be applicable to a silicon melt infiltration process, and that such a teaching would be applicable to the materially different starting materials, and used in blades intended for different application environments and conditions.

The addition of a fourth reference to Steibel et al. '737 fails to correct the deficiencies of the prior art.

Steibel et al. '737 is directed to a method of forming a silicon carbide-containing preform. Steibel et al. '737 provides no teaching or suggestion to position a core insert section in the dovetail section of a turbine blade. Furthermore, the Examiner has not shown that Steibel et al. '737 provides any disclosure concerning the dovetail section in general.

In summary, the Examiner has failed to show how the combination of references produce a method of forming a ceramic matrix composite turbine blade having the claimed material and process limitations.

Applicant asks that the Examiner reconsider and withdraw this ground of rejection.

B. Steibel et al. in view of JP '103 and Baldwin

The Examiner has rejected claims 17 and 18 under 35 U.S.C. 103(a) as being obvious over Steibel et al. in view of JP'103 and Baldwin.

Specifically, the Examiner stated:

> Steibel et al. 6,280,550 discloses a method of making a composite turbine blade comprising: providing first reinforcement comprising an insert preform of silicon carbide fabric rigidized by deposited silicon carbide (silicon carbide-silicon carbide composite preform having porosity); optionally depositing matrix material to fill only a portion of the porosity of the insert preform (silicon-silicon carbide composite preform having some porosity); providing second reinforcement comprising silicon carbide fabric plies (outer

shell section preform); applying the silicon carbide fabric plies to contact the insert and define the surface shape of the blade; and depositing matrix material into the porosity of the first and second reinforcement, the depositing also providing bonding between the first and second reinforcements. Matrix material may be deposited by melt infiltration of silicon so that the matrix is silicon carbide or mixture of silicon and silicon carbide (col. 2-7). Steibel et al. do not disclose providing the composite turbine blade with a dovetail section by inserting an insert preform in the dovetail section.

JP 6-137103 teaches that a fiber reinforced composite turbine blade, such as of fiber strengthening ceramic (ceramic matrix composite), is made with a dovetail section using reinforcing fiber which extends from the dovetail section to the blade part (Abstract and computer translation).

Baldwin teaches that in making composite airfoils (fan blades), inserts or "preforms" are provided in both the blade part to form the core of the blade and in the root part (dovetail) of the blade. The inserts are made to be of the same composite material as the composite material layered over the inserts to form the composite blade. Using inserts enhance producibility and eliminate hundreds of prepreg layers, especially in the thick root sections (col. 2, lines 13-57, col. 4, lines 44-46).

It would have been obvious to one of ordinary skill in the art to have modified the method of Steibel et al. for making a composite turbine blade by making the turbine blade with a dovetail section, as taught by JP ' 103, as provided as part of a turbine blade and also made during the fabrication of a fiber reinforced composite blade. Providing the fabric plies (outer shell section preform) to extend from the blade part to a

dovetail section to form both the blade and dovetail section of a turbine blade in one step of matrix deposition would have been obvious to one of ordinary skill in the art, as JP ' 103 teaches that the reinforcing fiber for a turbine blade extends from the blade section to the dovetail section.

Providing an insert preform not only in the blade section but also in the dovetail section would have been obvious to one of ordinary skill in the art, as Baldwin teaches that a composite fan blade having a root part (dovetail) is provided with insert (insert preform) not only in the blade part but also in the dovetail part in order to enhance producibility and reduce the number of prepreg layers, especially in the thick dovetail section. Providing an insert (insert preform) in the dovetail section as silicon carbide fabric rigidized by deposited silicon carbide (silicon carbide- silicon carbide composite preform having porosity), or silicon-silicon carbide composite preform having some porosity, would have been obvious to one of ordinary skill in the art to provide an insert preform in the dovetail section similar to that provided in the blade section to allow for deposition of matrix by silicon melt infiltration and bonding between the preform and the fabric plies, as disclosed by Steibel et al. It would have been obvious to one of ordinary skill in the art that, in making a silicon carbide-silicon carbide composite turbine blade using insert preforms in both the blade part and dovetail part, to provide the insert preforms as similar in composition to each other and to the fabric plies which are to contact the insert preforms, as Baldwin et al. teach that the insert in the blade part and dovetail part are similar in composition and to that of the prepreg layers (plies) to enhance producibility and to reduce the number of prepreg layers required, especially in the thick dovetail part of the blade. The use of the same type of insert preform in the dovetail section as used in the blade section would have been obvious to one of ordinary skill in the art, as clearly suggested by Baldwin, to make a composite blade.

Further, by providing a second reinforcement of silicon carbide fabric plies for defining the surface shape of the blade and into which silicon can be deposited by melt infiltration, an outer shell preform having at least some porosity is obviously provided.

Steibel et al., JP'103 and Baldwin are discussed above.

Claim 17, as amended, provides for:

"providing a solid core insert section having a preselected geometry, the core insert section comprising a material selected from the group consisting of a silicon carbide-silicon carbide composite preform having at least some porosity, a silicon-silicon carbide composite, the silicon-silicon carbide composite preform having at least some porosity, and a monolithic ceramic;"

and

"assembling the solid core insert section and the outer shell preform into a turbine blade form, the turbine blade form comprising a dovetail section and an airfoil section, wherein solid core insert section is positioned in the dovetail section of the turbine blade form; and

filling remaining porosity in the turbine blade form with at least silicon using the silicon melt infiltration process, the filling also forming a bond between the solid core insert section and the outer shell preform."

The above limitations are not taught nor obvious from the combined art.

The preforms of Steibel et al. are hollow, in contrast to the solid inserts of the present invention, as discussed above.

Furthermore, the preforms of Steibel et al. are used in forming a vane portion of a turbine component, and more particularly, are taught to form component parts wherein the preforms are used in areas of hollow passageways or cooling channels, as discussed above.

In summary, the Examiner has failed to show how the combination of references produce a method of forming a ceramic matrix composite turbine blade having the claimed solid inserts of the claimed instant invention.

Applicant asks that the Examiner reconsider and withdraw this ground of rejection.

CONCLUSION

In view of the above, Applicants respectfully request reconsideration of the Application and withdrawal of the outstanding rejections. As a result of the amendments and remarks presented herein, Applicants respectfully submit that claims 12-24 are not rendered obvious by the cited prior art. As the claims are not rendered obvious by the applied art, Applicants request allowance of claims 12-24 in a timely manner. Applicants

submit that no new matter has been added by the amendments to the claims. If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the Applicants.

The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,

/Daniel J. Jenkins/

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